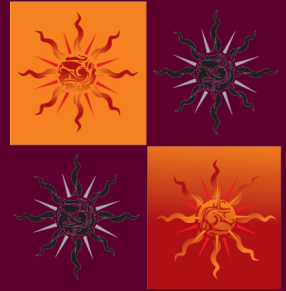




The Four Peaks Post

Fall 2013

National Weather Service — Phoenix, AZ



Fall Edition of The Four Peaks Post Newsletter!

By Charlotte Dewey, Meteorologist Intern

Inside this issue:

- Summer Vacation Photos!
- Monsoon 2013
- Weather Spotter Appreciation
- National Preparedness Month
- New Precip Maps
- Behind-The-Scenes
- New Face at PHX

Office Leadership

Meteorologist in Charge

Gary Woodall

Warning Coordination Meteorologist

Ken Waters

Science and Operations Officer

Vacant

Questions:

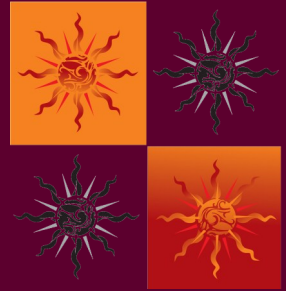
w-psr.webmaster@noaa.gov

As the Monsoon comes to an end, the Summer heat and storm season is headed out the door and we are welcoming cooler temperatures, shorter days and less thunderstorm activity. Fall time in Arizona is a beautiful time in the high country with changing colors of the trees and increased outdoor activities now that the temperatures are more bearable.

We look forward to many more newsletters coming out with great information that will hopefully be helpful and informative.



Image credit Dave Dilli Photography 2010

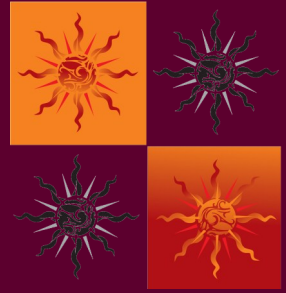


What I did on Summer Vacation

Not everyone here at NWS Phoenix gets a 'vacation' during the summer months since that is the busiest season with Monsoon storms and activity, but by taking turns we all get some time off. From traveling to the East Coast to the West Coast, the mountains to the plains, and even a little stay-cation here in the Valley, some of our staff were able to enjoy different areas of the United States.



Images: 1. Zion National Park, the road to Kolob Reservoir. 2. View of sunflowers in a field on the San Carlos Indian Reservation, Arizona. 3. Hawley Lake, Arizona. 4. Photo of a sea lion on Catalina Island, California. 5. Photo of the Chihuly Garden and Glass in Seattle, Washington. 6. Newest grand-baby born to one of our staff members here in the office. 7. Dowdy Lake in Red Feather, Colorado. 8. Crosscut Trail in the Superstition Mountains, Arizona. 9. Chicago River, Illinois. 10. Photo of Ruidoso, New Mexico. 11. Leatherwood Lake, Eureka Springs, Arkansas. 12. The road to Four Peaks, Arizona. 13. Reconstruction of the famed Long Beach boardwalk that was badly damaged during Hurricane Sandy (Oct 2012). View is due east with Atlantic Ocean on right. New boardwalk features Brazilian hardwood and is expected to last up to 40 years. 14. Riverwalk in San Antonio, Texas. 15. New grand-baby born to daughter of staff member here in the office. 16. Fireworks in San Antonio, Texas. 17. Roosevelt Lake, Arizona. 18. Photo of a tornado from May 2 in Shawnee, Oklahoma. 19. Snake seen on the Crosscut hiking trail in the Superstition Mountains, Arizona. 20. Cabin outside of Ruidoso, New Mexico. 21. Sunrise in July over Phoenix, Arizona. 22. Aspen trees at a cabin in Red Feather, Colorado.



Southwest Climate Corner: Monsoon 2013

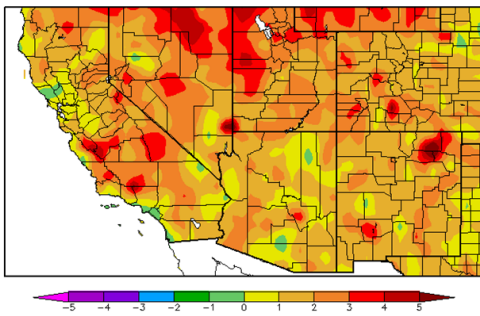
By Mark O'Malley, Forecaster/Climate Science Program manager

Monsoon season 2013 (June 15-Sept 30) ended very quietly as moisture was quickly displaced into central Mexico by strong westerly winds. For Arizona and southeast California, this was the second consecutive season of above normal activity and beneficial rainfall. This active season once again temporarily helped alleviate drought conditions, which have plagued the area for the past several years.

When averaged over the entire monsoon season, temperatures across the region were above normal (normals are calculated for the 1981-2010 period). The most persistent and excessive heat occurred in June and early July; where in Phoenix, the high temperature exceeded 105 degrees on 39 of 40 straight days and came within 3 degrees of the all-time record high temperature on June 29th.

Precipitation totals for the monsoon season varied somewhat across the region. However, with the exception of a few locations in central and southern Arizona, amounts were above normal. In some cases, rainfall was much above average with the wettest conditions seen in northern Arizona, with Flagstaff experiencing their 2nd wettest Monsoon season on record.

Departure from Normal Temperature (°F)
6/1/2013 – 8/31/2013

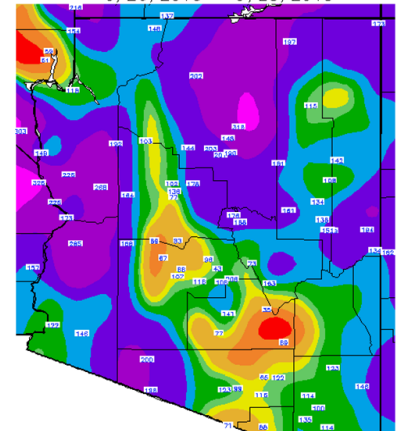


Generated 9/11/2013 at HPRCC using provisional data. Regional Climate Centers

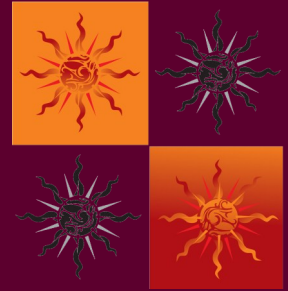
City	June 2013 Avg Temp	July 2013 Avg Temp	Aug 2013 Avg Temp	Sept 2013 Avg Temp	Monsoon Average
Phoenix	94.8 (+4.0)	95.7 (+0.9)	94.7 (+1.1)	88.7 (+0.3)	93.5 (+1.6)
Yuma	91.6 (+2.6)	95.3 (+0.8)	93.3 (-1.0)	89.2 (+0.2)	92.4 (+0.7)
Tucson	89.4 (+4.6)	88.0 (+1.0)	87.5 (+2.2)	82.9 (+1.3)	87.0 (+2.3)
Flagstaff	64.5 (+4.6)	66.9 (+0.8)	63.8 (-0.4)	57.1 (-0.3)	63.1 (+1.2)

City	June 2013 Precip	July 2013 Precip	Aug 2013 Precip	Sept 2013 Precip	Monsoon Precip
Phoenix	0.00 (-0.02)	1.77 (+0.72)	0.36 (-0.64)	0.86 (+0.22)	2.99 (+0.28)
Yuma	0.00 (-0.01)	0.47 (+0.18)	0.22 (-0.25)	0.51 (-0.02)	1.20 (-0.10)
Tucson	0.03 (-0.17)	2.60 (+0.35)	0.48 (-1.91)	0.63 (-0.66)	3.74 (-2.39)
Flagstaff	0.03 (-0.33)	7.57 (+4.96)	4.85 (+1.74)	3.25 (+0.87)	15.70 (+7.24)

Percent of Average Precipitation (%)
6/26/2013 – 9/23/2013



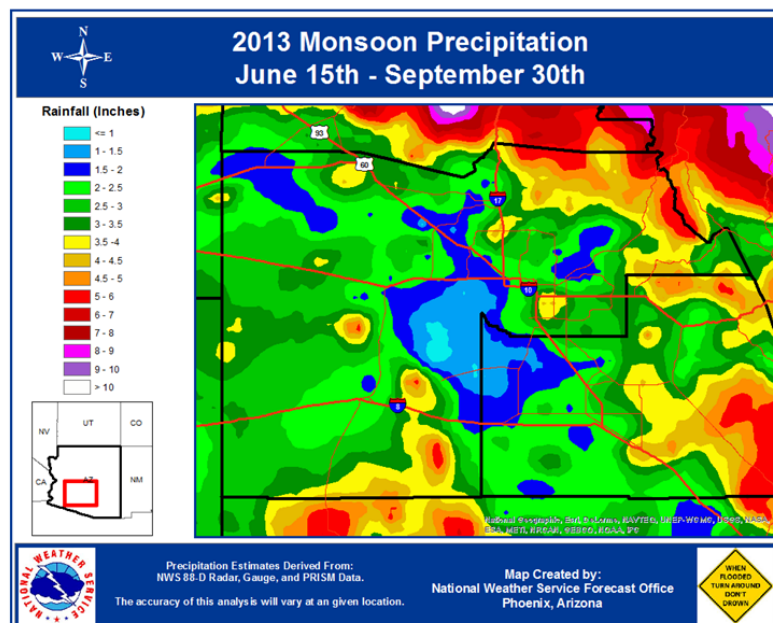
Generated 9/24/2013 at WRCC using provisional data.
NOAA Regional Climate Centers

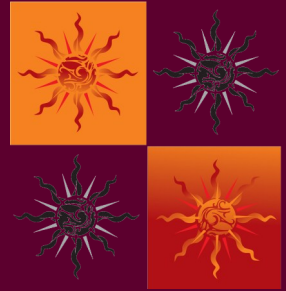


Climate Corner (Continued)

Focusing in closer to the Phoenix metropolitan area, for the 2nd consecutive year Sky Harbor airport ended the monsoon season slightly above normal (2.99 inches this year vs. 3.00 inches in 2012). Higher rainfall totals were generally relegated to the northern and eastern parts of the city with lesser amounts on the west and southwest sides of town.

Station	June	July	August	Sept	Total (Dept)
Sky Harbor	0.00	1.77	0.36	0.86	2.99 (+0.28)
Deer Valley	0.00	0.48	1.40	3.03	4.91 (+1.45)
Scottsdale	0.00	2.35	0.49	0.80	3.64 (+0.52)
Lost Dutchman SP	0.00	4.10	1.24	2.38	7.72 (+3.79)
Carefree	0.00	2.07	0.18	2.93	5.18 (+1.78)
Casa Grande	0.00	2.62	1.00	0.61	4.23 (+1.07)
Maricopa	0.00	0.58	0.68	0.00	1.26 (-1.47)
East Mesa	0.00	0.43	1.38	2.05	3.86 (+0.14)
Tempe	0.00	0.95	0.30	0.56	1.81 (-1.31)
Litchfield Park	0.00	0.26	1.74	1.05	3.05 (+0.01)





Weather Spotter Appreciation, "Thank you!"

During the Monsoon, and throughout the entire year, our Storm Spotters are extremely valuable to us at The National Weather Service Phoenix office. Storm spotters provide timely updates during severe weather, which helps us as forecasters to know what is happening on the ground. Our radar, satellite, and other forecasting tools and equipment are very important during severe weather. Spotter reports supplement the electronic data, and combining all of the data sources gives us a full picture of how the situation is evolving.



Thunderstorm Winds

Flash Flooding



MONSOON

Dust

2013

Lightning

Heat

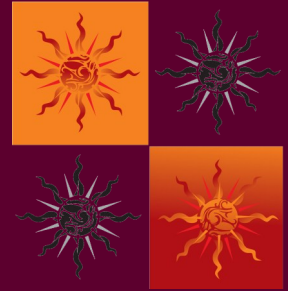
Thank you Storm Spotters!

Spotter Training Season starts late Spring 2014

Interested in becoming a NWS Storm Spotter?

Need to go through a Spotter Training refresher?

Keep an eye on our Internet homepage for links and updates next year!



Strategic Highway Safety Plan

By Ken Waters, Warning Coordination Meteorologist

NWS Phoenix is working hand-in-hand with the Arizona Department of Transportation (ADOT) to develop a 5-year Strategic Highway Safety Plan. For the first time, this plan will now include the significant blowing dust and dust storm threat that we see in Arizona. The first plan for the state was developed in 2007 and dealt primarily with only driver behavior aspects. The recent spate of dust storms across the state helped to identify the need to deal with these sporadic, sometimes very dangerous phenomena and include them in the upcoming plan. The goal is to be able to identify these hazards in real-time, educate the public about them and what actions to take, and to respond to these incidents in a way that would reduce the threat of death or injury from them.

ARIZONA Strategic Highway Safety Plan



★ ENGINEERING



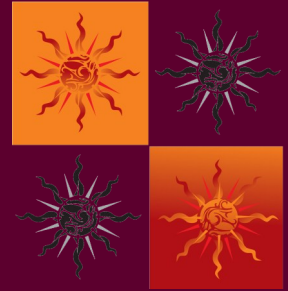
★ EDUCATION



★ ENFORCEMENT



★ EMERGENCY RESPONSE



September was National Preparedness Month BUT Preparedness is a year-round effort!

By Jessica Nolte, Meteorologist



Do you know what preparedness means? Do you, your family, your neighbors, your community know what to do when an emergency occurs? September is deemed as National Preparedness Month. If you and your family have not created a Preparedness Kit/Plan, now is your chance and if you already have one, this annual event is a great reminder to check the status of your Kit/Plan!

➤ Basic Preparedness Steps

- Build a kit
- Make a plan
- **Stay informed**
- Get involved

More resources visit:

www.Ready.gov/build-a-kit
www.Ready.gov/make-a-plan
www.Ready.gov/be-informed

So what is an emergency? Think of something unexpected, something that disrupts your daily routine AND/OR poses a risk to life, property and/or the environment. We've seen several examples recently of disastrous or un-

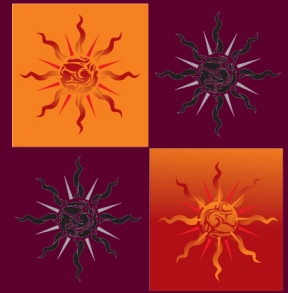
expected situations like Superstorm Sandy, the attack on the Boston Marathon, the very active wildfire season across the West and the significant flooding in Colorado. Following the "Basic Preparedness Steps" outlined by FEMA and Ready.gov, there are four key steps to get started down the Preparedness road: 1) *Build a Kit*, 2) *Make a Plan*, 3) *Stay Informed*, and 4) *Get Involved*! Having a preparedness plan will help you and your family "weather" any storms – if they are in the forecast or not.

It is important to understand the hazards that are likely to occur in your community. This fits into the "*Stay Informed*" step. In the Desert Southwest, we face a variety of weather related hazards including dangerous heat, dust storms/blowing dust, strong thunderstorm winds and lightning, flash flooding and wildfires. Even our friends and family across northern Arizona have the challenge of winter weather thrown into the weather hazard mix. If you are traveling to visit family or for work/school, take a little bit of time to identify the weather hazards of your destination. Check out your forecast so you can pack accordingly and know what you may need to respond/react to during your visit. You can always get the forecast for any city across the United States via weather.gov!

However, even though there are seasons to the weather, including the Monsoon, it is important to know that weather hazards can occur outside of their "normal" or what some may deem "traditional" periods. The NWS Mission fits well with the "Stay Informed" part of the Basic Preparedness Steps and unfortunately the weather hazards we forecast and issues watches/warnings for can sometimes make you get into your Preparedness kits!

Even though National Preparedness Month has already passed us by, preparedness is a year-round effort. It's not too late to visit ready.gov for more resources, essentials on building your kit and starting your family and community down the road to preparedness.

Important Resources: ***Ready.gov*** & ***weather.gov***

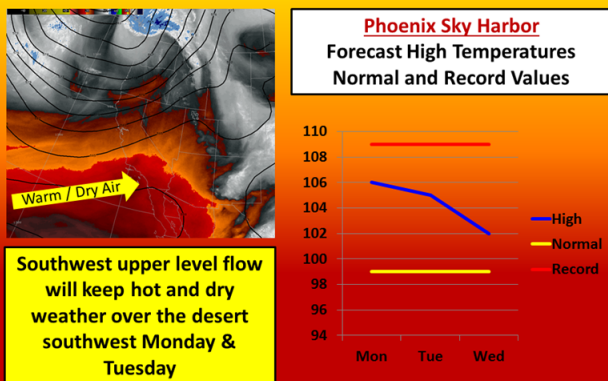


Data Visualization—New Precipitation Maps Unveiled

By Michael McLane, Senior Service Hydrologist

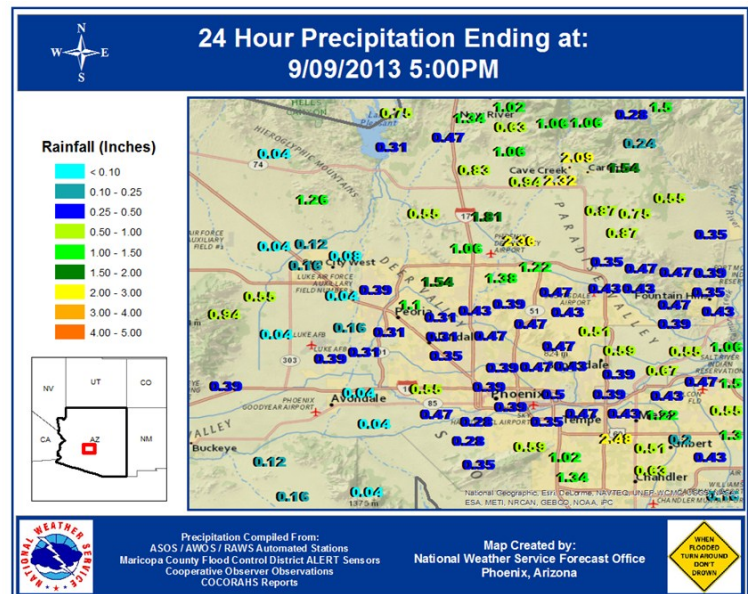
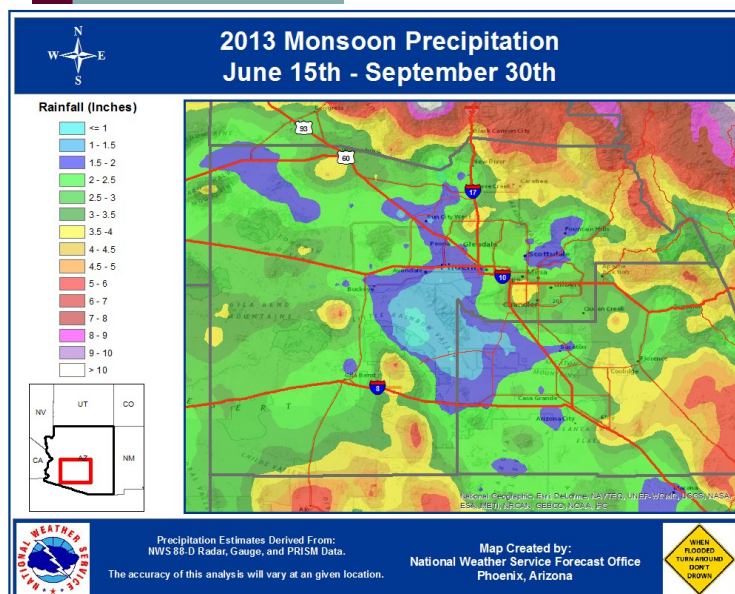
Have you ever heard the saying “a picture is worth a thousand words?” What this basically refers to is the fact that is usually easier to comprehend ideas when they are conveyed in an image then when they are presented in text form. Drawing on a recent event, I can tell you how devastating the floods were in Colorado or show you a table with a list of rainfall totals and river stage readings, but a picture showing destroyed roads and homes will likely do a better job of convincing you how bad this flooding really was.

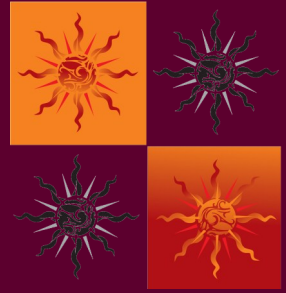
...Dry and Hot Monday and Tuesday...



NWS Phoenix Weather Image

We are creating two types of graphics. One that shows just plotted precipitation readings and another that shows a contour analysis of the data. Our forecasters will use the product that best depicts the rainfall for each specific event. Examples of both of these graphics are shown below.





Behind-The-Scenes

By Anthony M. Harper, Electronics Systems Analyst

Hello from all the individuals working Behind-The-Scenes. I am the new guy in town working here at your Phoenix office as the Electronics/Information Technology team leader. Most of you are aware of what your National Weather Service (NWS) is about based on our Web Pages, Facebook, Tweets, YouTube and NOAA Weather Radio. You see all of our products such as Forecasts, Weather Maps, Satellite Imagery and Hazardous Weather Alerts on your TVs, Radios and now on your Cell Phones. Seeing how I'm a "Techno Nut", I figured there are a lot of you out there who may be interested in what happens Behind-The-Scenes here at your local Weather Forecast Office. Our hope is to have a "Behind-The-Scenes" article in all future publications of the "Four Peaks Post" to create a following of individuals curious about "The Rest of the Story". Hopefully, future articles will give you an idea of who we are and what we do here on a regular basis. Each article will have links listed below them for those of you who need more information like me. Since this is an "Introduction" type article, I hope to give you an idea of the structure that supports the Meteorologist in accomplishing the mission of your National Weather Service.



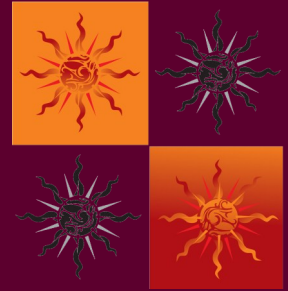
Phoenix WSR-88D Doppler Radar (KIWA) in Mesa.

Electronics Technician (0856): We have two experts trained to maintain NWS Systems such as the WSR-88D Radar, the Automated Surface Observation Systems, and the NOAA Weather Radios. These individuals are two of the best in the nation in their respective fields of expertise with 67 years of combined experience. They are also cross trained locally to maintain IT Hardware and software.

Information Technology (2210): We have two individuals with 57 years of combined experience well-versed in System Administration, Network Management, Linux, Hardware Repair/Upgrade, Data Communication, Software development, IT Security and Configuration Management. They maintain the Advanced Weather Interactive Processing System and all IT related hardware and software.

We also have many teams comprised of IT Staff members and Meteorologists working in areas such as GIS, Modeling, Web pages and Software development.

If nothing else, I hope you have learned something new about your National Weather Service Office here in Phoenix and we thank you for the opportunity to serve you.



New Staff to NWS Phoenix

By Charlotte Dewey

Earlier this year, we added a new face to the staff of NWS Phoenix. A new addition to our Electronics Team (ET), comes our Electronics System Analyst (ESA) Tony Harper.

A short background on Tony. He served in the United States Marines for 20 years (1974—1994) and while serving, became an ITO (Information Technology Officer) and worked as a Maintenance Supervisor on Intelligence Systems. He joined the NWS Tampa office as an ITO in August of 2003, and then moved to our office in Phoenix to become the Electronics System Analyst in March 2013. Some of his interests include Fast Pitch Little League, of which he has managed teams for 18 years and developed a Fast Pitch clinic for 10 years, producing two Division 1 pitchers. He has 5 kids and 9 grandkids and has quickly developed a love for Arizona Golfing.